PATENT
Docket No. 6871-105 / 10024998

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application Of	)
	)
PHILLIP W. BARNETT, et al.	)
	) Examiner:
Serial No.: 09/759,498	)
	) Group Art Unit:
Filed: January 12, 2001	)
	)
For: MULTI-TERM FREQUENCY	)
ANALYSIS	)
	) May 8, 2001

Assistant Commissioner for Patents
Box: Response
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Please amend the above-identified patent application as follows:

IN THE DRAWINGS:

No new matter is added.

Formal drawings are enclosed as replacements for the previously sent informal drawings.

IN THE SPECIFICATION:

No new matter is added. The modification is made under the current 37 CFR 1.78.

Please amend the specification as follows: The new paragraph 1 should read:

This application claims the benefit of Provisional Applications: 60/175,705, filed 01/12/2000; 60/176935 filed 01/18/2000; 60/180,974, filed 02/08/2000; 60/186,720, filed 03/03/2000; 60/194,562, filed 04/03/2000 and 60/194,578, filed 04/05/2000.

The modification of paragraph 1 is indicated as follows:

This application claims the benefit of Provisional Applications: 60/175,705, filed 01/12/2000; 60/176935 filed 01/18/2000; 60/180,974, filed 02/08/2000; 60/186,720, filed 03/03/2000; 60/194,562, filed 04/03/2000 and 60/194,578, filed 04/05/2000.

where the additional provisional application has been added (underlined).

IN THE CLAIMS:

Please amend claim 1 as follows:

1. (once amended) An apparatus for assisting a user in decision-making comprising:

at least one input interface adapted to receive input data representing current information about conditions in a domain;

at least one memory for storing a plurality of items of data about said domain, items of data from a database representing information about the domain, and information external to the domain;

a decision processor adapted to generate output data representing a choice, in accordance with its programmed algorithms, axioms and rules, based on data from said memory and from said at least one input interface;

a storage device for storing an operator system algorithm and data;

a computer programmed to compute said operator system algorithm;

at least one user interface adapted to enable a user to interact with said decision processor wherein said user interface comprises said input interface;

a connection bus connecting at least one memory, the decision processor and the at least one user interface wherein said at least one user interface permits a user to select selectable data and a selectable operator system algorithm, one or more selectable domains, selectable axioms and selectable rules, and wherein said decision processor is adapted to generate output data based on said selections made.

Please amend claim 7 as follows:

7. (once amended) The apparatus as in claim 6 further comprising:

a first feedback operator; wherein said first operator is applied to the output of the interrelate-selected-data operator to adjust search terms to be narrower or broader in selecting raw data.

Please amend claim 14 as follows:

14. (once amended) The apparatus as in claim 13 further comprising:

(a)   assignee field index (AFI) defined as: AFI = H1• PerCentAHP • Aver.,

where:

H1 = ½ [(An Assignee's Hits / An Assignee's Patents) + (An Assignee's Recent Hits / An Assignee's Recent Patents)] ,

Where:

PerCentAHP = Percentage of Cells where the Assignee Holds at least one Patent = (Number of Cells where an Assignee Holds at least one Patent) / (Total Number of Cells in the Technology Field),

And where: Aver. = Average (ACI x CSI) across the Technology Field

= (Sum of each (ACI x CSI) for each Assignee) / (Total Number of Cells in the Technology Field);

(b)   standardized assignee field index(sAFI) defined as: sAFI =AFI • Standardizing Factor

where: Standardizing Factor = 100 / Max(AFI).

Please amend claim 18 as follows:

18. (once amended) A method of operating a computer apparatus adapted to assist a user in decision making with respect to a selected domain application, comprising the steps of:

(a)   generating data representing a candidate choice from data representing a pool of potential candidate choices utilizing predefined data, axioms, rules and an operator algorithm system;

(b)   displaying graphical and alphanumeric output from the generated data;

(c)   providing output results for user evaluation;

(d)   readjusting internal parameters or algorithms by the user, as user requires;

. (e)   repeating the data generation and data display until output data satisfies user.

Please amend claim 19 as follows:

19. (once amended) A method for a making decision aid comprising the steps of:

(a)   utilizing an operator system algorithm for performing calculations;

(b)   incorporating into said operator system algorithm recursive capability;

(c)   incorporating into said operator system algorithm feedback capability;

(d)   including in said operator system algorithm capacity to self-modify its operators;

(e)   incorporating capability into said operator system to follow a set of rules;

(f)   utilizing a set of axioms particular to an area of application of said algorithm;

(g)   utilizing a set of rules particular to a user.

Please amend claim 29 as follows:

29. (once amended) A method for performing multi-term frequency analysis comprising the steps of:

(a)   mapping patent information;

(b)   mapping technology information;

(c)   building a technology landscape from said mapped patent information and from said mapped technology information;

(d)   building a competitive rights landscape from said technology landscape and patent information;

(e)   utilizing multiple search results as a source for output to a user;

(f)   utilizing cross-tabulations of frequencies as a source for output to a user;

(g)   utilizing inferences from general intellectual asset strategy to supplement multi-frequency analysis as output to a user.

Please amend claim 40 as follows:

40. (once amended) The method as in claim 37 further comprising the steps of:

(a)   defining assignee field index (AFI) as:

$$AFI = H1 \bullet PerCentAHP \bullet Aver.,$$

where:

$H1 = \frac{1}{2}$ [(An Assignee's Hits / An Assignee's Patents) + (An Assignee's Recent Hits / An Assignee's Recent Patents)] ,

where:

PerCentAHP = Percentage of Cells where the Assignee Holds at least one Patent = (Number of Cells where an Assignee Holds at least one Patent) / (Total Number of Cells in the Technology Field),

and where:

Aver. = Average (ACI x CSI) across the Technology Field

= (Sum of each (ACI x CSI) for each Assignee) / (Total Number of Cells in the Technology Field);

(b)   defining standardized assignee field index (sAFI) as:

sAFI =AFI • Standardizing Factor

where:

Standardizing Factor = 100 / Max (AFI).

Please amend claim 65 as follows:

65. (once amended) The system as in claim 62 further comprising:

(a)   assignee field index (AFI) defined as: AFI = H1• PerCentAHP • Aver.,

where:

$H1 = \frac{1}{2}$ [(An Assignee's Hits / An Assignee's Patents) + (An Assignee's Recent Hits / An Assignee's Recent Patents)] ,

Where:

PerCentAHP = Percentage of Cells where the Assignee Holds at least one Patent = (Number of Cells where an Assignee Holds at least one Patent) / (Total Number of Cells in the Technology Field),

And where: Aver. = Average (ACI x CSI) across the Technology Field

= (Sum of each (ACI x CSI) for each Assignee) / (Total Number of Cells in the Technology Field);

b) standardized assignee field index(sAFI) defined as: sAFI =AFI • Standardizing Factor where: Standardizing Factor = 100 / Max(AFI);

(c) a computer.

No change in the following original claims is requested, except to correct the numbering.

Please amend claim 67 as follows:

69. (once amended) The system as in claim 59 further comprising:

(a) a threadword; wherein said threadword acts to narrow a top-down search wherein a large number of initial data records are identifies; whereby a reduction in altitude is obtained.

(b) a second iteration wherein a more restrictive threadword is utilized; wherein the number of relevant data records is reduced; whereby a further reduction in altitude is obtained.

(c) further iteration, as user specifies, utilizing more restrictive threadwords to further reduce the number of relevant data records; whereby a greater reduction in altitude is obtained.

Please amend claim 68 as follows:

70. (once amended) The system as in claim 56 further comprising:

(a)   a threadword; wherein said threadword acts to narrow a top-down search wherein a large number of initial data records are identifies; whereby a reduction in altitude is obtained.

(b)   a second iteration wherein a more restrictive threadword is utilized; wherein the number of relevant data records is reduced; whereby a further reduction in altitude is obtained.

(c)   further iteration, as user specifies, utilizing more restrictive threadwords to further reduce the number of relevant data records; whereby a greater reduction in altitude is obtained.

Please amend claim 69 as follows:

71. (once amended) The method as in claim 34 further comprising the steps of:

a)   utilizing a threadword; wherein said threadword acts to narrow a top-down search wherein a large number of initial data records are identifies; whereby a reduction in altitude is obtained;

(b)   utilizing a second iteration wherein a more restrictive threadword is utilized; wherein the number of relevant data records is reduced; whereby a further reduction in altitude is obtained.

(c)   iterating further , as user specifies, utilizing more restrictive threadwords to further reduce the number of relevant data records; whereby a greater reduction in altitude is obtained.

Please amend claim 70 as follows:

72. (once amended) The apparatus as in claim 10 further comprising:

(a)   a threadword; wherein said threadword acts to narrow a top-down search wherein a large number of initial data records are identifies; whereby a reduction in altitude is obtained.

(b)   a second iteration wherein a more restrictive threadword is utilized; wherein the number of relevant data records is reduced; whereby a further reduction in altitude is obtained.

(c)   further iteration, as user specifies, utilizing more restrictive threadwords to further reduce the number of relevant data records; whereby a greater reduction in altitude is obtained.

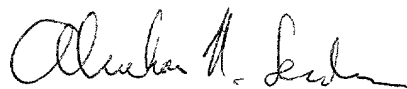## REMARKS

Claims 1-72 remain in the application.

Claims 1, 7, 14, 18, 19, 29, 40 and 65 have been amended.

Claims 67 (repeat), 68 (repeat) 69 and 70 have been amended as to their numbering, only.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment.

Respectfully submitted,

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Insertion
~~Deletion~~

CHANGES TO SPECIFICATION

5   This application claims the benefit of Provisional Applications: 60/175,705, filed 01/12/2000; 60/176935 filed 01/18/2000; 60/180,974, filed 02/08/2000; 60/186,720, filed 03/03/2000; 60/194,562, filed 04/03/2000 and 60/194,578, filed 04/05/2000.

CHANGES TO AMENDED CLAIMS SHOWN:

10

1. (once amended) An ~~computer~~-apparatus ~~capable of~~for assisting a user in decision-making ~~in respect of a selected domain,~~ comprising:

(a)   ~~one or more~~at least one input ~~interfaces capable of receiving~~interface adapted to receive input data representing current information about conditions in a domain;

15   (b)   at least one ~~or more memories~~memory for storing a plurality of items of   data about said domain ~~and also~~, items of data from a database representing information about the domain, and information external to the domain;

(c)   a decision processor ~~capable of generating~~adapted to generate output data representing a choice, in accordance with its programmed algorithms, axioms and rules,

20   based on data from said memory and from said at least one input interface~~(s)~~;

(d)   a storage device for storing an operator system algorithm and data;

(e)   a computer programmed to compute said operator system algorithm;

(f)   at least one ~~or more~~ user ~~interfaces that~~interface adapted to enable a user to interact with said decision processor~~;~~ wherein said user interface ~~may comprise~~ a~~comprises~~ said input interface;

(g)   a connection bus ~~capable of effecting connections among the input interface; the~~ memorie~~(s);~~connecting at least one memory, the decision processor~~(s)~~ and the at least one user interface~~(s);~~ wherein said at least one user interface permits a user to select selectable data and a selectable operator system algorithm, one or more selectable domains, selectable axioms and selectable rules~~;~~, and wherein said decision processor is ~~capable of generating~~adapted to generate output data based on said selections made.

7.   (once amended) The apparatus as in claim 6 further comprising:

~~(a)~~   a first feedback operator; wherein said first operator is applied to the output of the interrelate-selected-data operator to adjust search terms to be narrower or broader in selecting raw data.

14. (once amended) The apparatus as in claim 13 further comprising:

(a)   assignee field index (AFI) defined as: AFI = H• PerCentAHP • Aver.,

where:

H = ½ [(An Assignee's Hits / An Assignee's Patents) + (An Assignee's Recent Hits / An Assignee's Recent Patents)] ,

Where:

PerCentAHP = Percentage of Cells where the Assignee Holds at least one Patent = (Number of Cells where an Assignee Holds at least one Patent) / (Total Number of Cells in the Technology Field),

And where: Aver. = Average (ACI x CSI) across the Technology Field

= (Sum of each (ACI x CSI) for ~~the given~~each Assignee ~~in each cell in the~~ ~~Technology Field x CSI of the respective cell)) / (Total Number of Cells~~ ~~in the Technology Field);~~) / (Total Number of Cells in the Technology Field);

5   ~~(b)   standardized assignee field index(sAFI) defined as: sAFI =AFI~~

(b)   standardized assignee field index(sAFI) defined as: sAFI =AFI • ~~Standardizing Factor~~ Standardizing Factor

where: Standardizing Factor = 100 / Max(AFI).

10   18. (once amended) A method of operating a computer apparatus ~~capable of~~ ~~assisting~~adapted to assist a user in decision making ~~in~~with respect ~~of~~to a selected domain application, comprising the steps of:

(a)   generating data representing a candidate choice from data representing a pool of potential candidate choices utilizing predefined data, axioms,
15   rules~~,~~ and an operator algorithm   system;

(b)   displaying graphical and alphanumeric output from the generated data;

(c)   ~~evaluating~~providing output results for user evaluation;

(d)   readjusting internal parameters or algorithms by the user, as user requires;

(e)   repeating the data generation and data ~~output stages~~display until output
20   data satisfies user.

19. (once amended) A method for a making decision aid comprising the steps of:

(a)   utilizing an operator system algorithm for performing calculations;

(b)   incorporating into said operator system algorithm recursive capability;

(c)   incorporating into said operator system algorithm feedback capability;

(d)   including in said operator system algorithm capacity to self-modify its operators;

(e)   incorporating capability into said operator system to follow a set of rules;

5   (f)   utilizing a set of axioms particular to an area of application of said algorithm;

(g)   utilizing a set of rules particular to a user.

29.   (once amended) A method for performing multi-term frequency analysis

10   comprising

the steps of:

(a)   mapping patent information;

(b)   mapping technology information;

(c)   building a technology landscape from said mapped patent information and

15   from said mapped technology information;

(d)   building a competitive rights landscape from said technology landscape and patent information;

(e)   utilizing multiple search results as a source for output to a user;

(f)   utilizing cross-tabulations of frequencies as a source for output to a user;

20   (g)   utilizing inferences from general intellectual asset strategy to supplement multi-frequency analysis as output to a user.

40.   (once amended) The method as in claim 37 further comprising the steps of:

(a)   defining assignee field index (AFI) as:

AFI = H• PerCentAHP • Aver.,

where:

H = ½ [(An Assignee's Hits / An Assignee's Patents) + (An Assignee's Recent Hits / An Assignee's Recent Patents)] ,

where:

PerCentAHP = Percentage of Cells where the Assignee Holds at least one Patent = (Number of Cells where an Assignee Holds at least one Patent) / (Total Number of Cells in the Technology Field),

and where:

Aver. = Average (ACI x CSI) across the Technology Field

= (Sum of each (ACI ~~x CSI~~ x CSI for ~~the given~~each Assignee ~~in each cell in the Technology Field x CSI of the respective cell~~)) / (Total Number of Cells in the Technology Field);

(b)   defining standardized assignee field index (sAFI) as:

sAFI = AFI • Standardizing Factor

where:

Standardizing Factor = 100 / Max(AFI).

65.   (once amended) The system as in claim 62 further comprising:

(a)   assignee field index (AFI) defined as: AFI = H• PerCentAHP • Aver.,

where:

$$H = \tfrac{1}{2} \left[\text{(An Assignee's Hits / An Assignee's Patents)} + \text{(An Assignee's Recent Hits / An Assignee's Recent Patents)} \right],$$

Where:

PerCentAHP = Percentage of Cells where the Assignee Holds at least one Patent = (Number of Cells where an Assignee Holds at least one Patent) / (Total Number of Cells in the Technology Field),

And where: Aver. = Average (ACI x CSI) across the Technology Field

= (Sum of each (ACI ~~x CSI~~ x CSI for ~~the given~~each Assignee ~~in each cell~~) / (Total Number of Cells in the Technology Field ~~x CSI of the respective cell)) / (Total Number of Cells in the Technology Field)~~;

(b)   ~~standardized assignee field index(sAFI) defined as: sAFI =AFI~~ b)

standardized assignee field index(sAFI) defined as: sAFI =AFI •

~~Standardizing Factor~~

Standardizing Factor where: Standardizing Factor = 100 / Max(AFI);

(c)   a computer.

CHANGES IN SUBSTITUTED CLAIMS (NUMBERING ONLY)

~~67.~~69. (once amended) The system as in claim 59 further comprising:

(a)   a threadword; wherein said threadword acts to narrow a top-down search wherein a large number of initial data records are identifies; whereby a reduction in altitude is obtained.

(b)   a second iteration wherein a more restrictive threadword is utilized; wherein the number of relevant data records is reduced; whereby a further reduction in altitude is obtained.

(c)   further iteration, as user specifies, utilizing more restrictive threadwords to further reduce the number of relevant data records; whereby a greater reduction in altitude is obtained.

5   68~70. (once amended) The system as in claim 56 further comprising:

(a)   a threadword; wherein said threadword acts to narrow a top-down search wherein a large number of initial data records are identifies; whereby a reduction in altitude is obtained.

(b)   a second iteration wherein a more restrictive threadword is utilized;

10   wherein the number of relevant data records is reduced; whereby a further reduction in altitude is obtained.

(c)   further iteration, as user specifies, utilizing more restrictive threadwords to further reduce the number of relevant data records; whereby a greater reduction in altitude is obtained.

15

69~71. (once amended) The method as in claim 34 further comprising the steps of:

a)   utilizing a threadword; wherein said threadword acts to narrow a top-down search wherein a large number of initial data records are identifies; whereby a reduction

20   in altitude is obtained;

(b)   utilizing a second iteration wherein a more restrictive threadword is utilized; wherein the number of relevant data records is reduced; whereby a further reduction in altitude is obtained.

(c)   iterating further , as user specifies, utilizing more restrictive threadwords

25   to further reduce the number of relevant data records; whereby a greater reduction in altitude is obtained.

70-72. (once amended) The apparatus as in claim 10 further comprising:

(a)   a threadword; wherein said threadword acts to narrow a top-down search wherein a large number of initial data records are identifies; whereby a reduction in altitude is obtained.

(b)   a second iteration wherein a more restrictive threadword is utilized; wherein the number of relevant data records is reduced; whereby a further reduction in altitude is obtained.

(c)   further iteration, as user specifies, utilizing more restrictive threadwords to further reduce the number of relevant data records; whereby a greater reduction in altitude is obtained.